

ABSTRACT

A method and system for measuring the macromolecular proton concentration involved in magnetization transfer comprising the steps of

- applying a first RF pulse of flip angle α_1 at a first time,
- applying a first magnetic field gradient along a predetermined direction,
- applying a second RF pulse of flip angle α_2 at a second time τ_1 seconds after said first time,
- applying a third RF pulse of flip angle α_3 at a third time $\tau_1 + \tau_2$ seconds after said first time ,
- applying a fourth RF pulse of flip angle α_4 at a fourth time $\tau_1 + \tau_2 + \tau_3$ seconds after said first time,
- applying a second magnetic field gradient along the same predetermined direction as said first magnetic field gradient, and
- detecting a stimulated echo at a fifth time.